



# System for Encoding and Manipulating Models of Objects

Inventor: Rockwood, et al.

Attny. Docket: MERL-1281

Filed: June 30, 2000

Serial Number: 09/609,106

1 of 5 Drawing Sheets

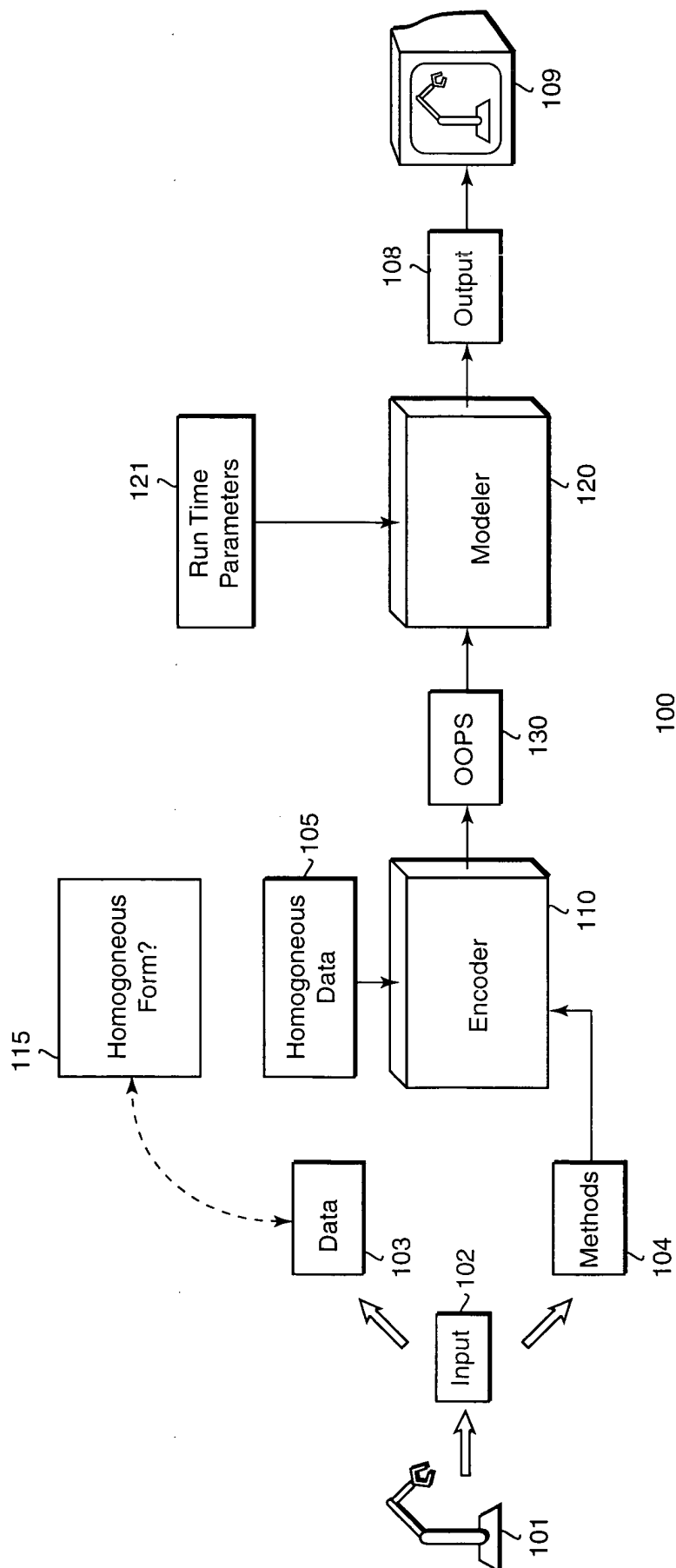


FIG. 1



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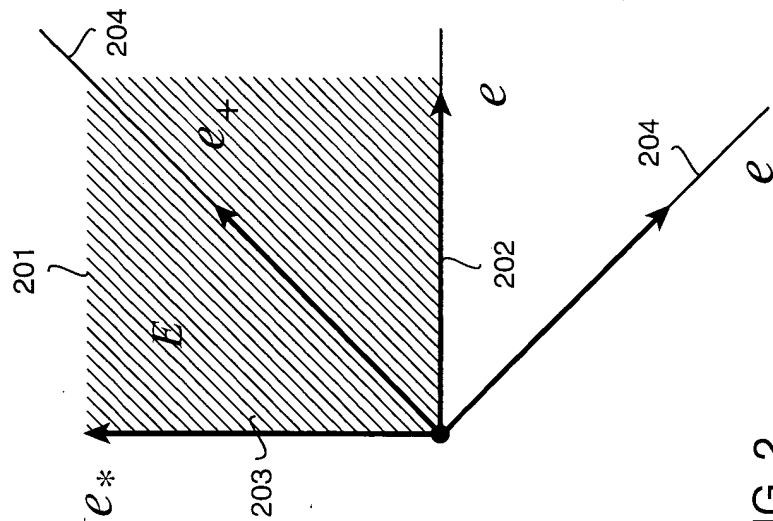


FIG. 2



System for Encoding and Manipulating Models of Objects

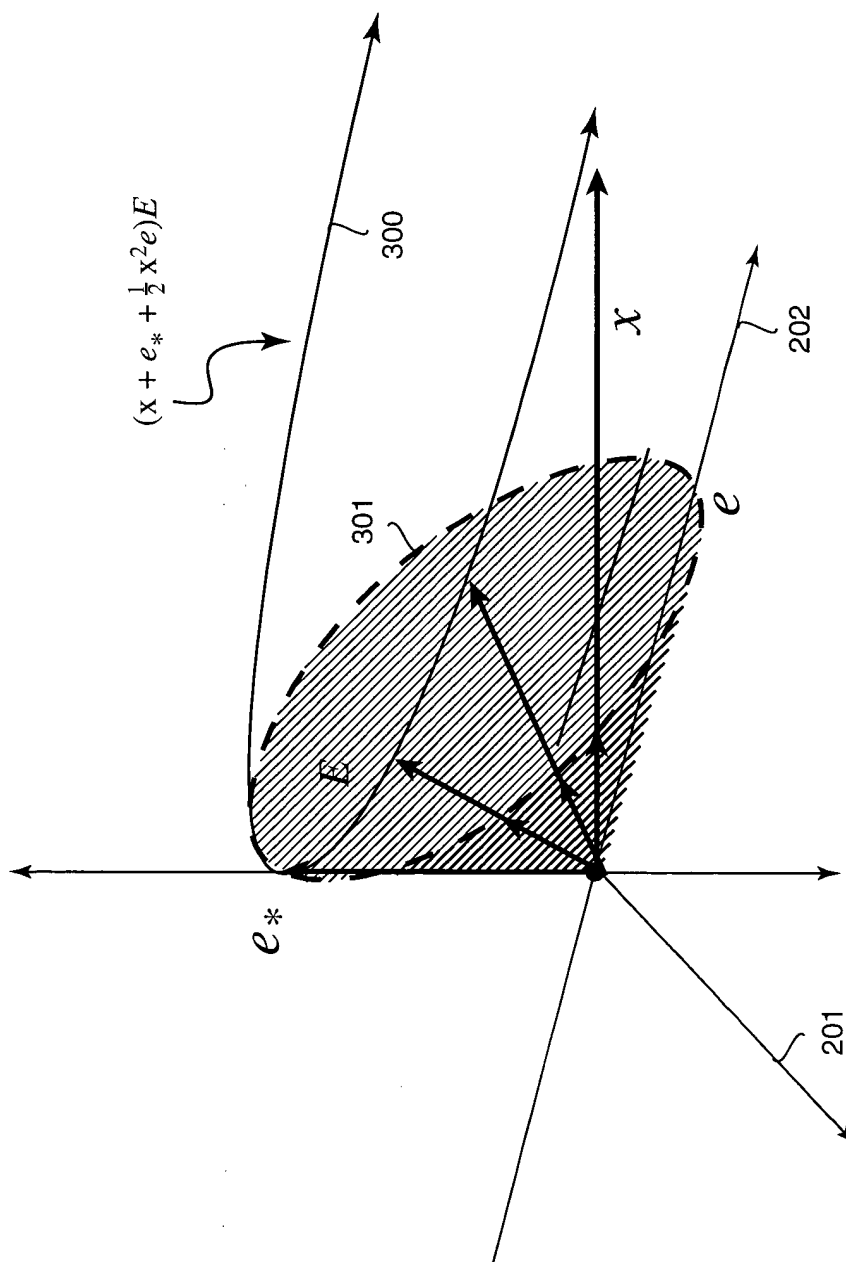
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401 Type	402 Euclidean	403 Homogeneous	404 $\sigma(X)$
Reflection	$-nxn + 2n$	$s = n + e\delta$	1
Inversion	$\frac{p^2}{x-c} + c$	$s = c - \frac{1}{2}p^2e$	$\left(\frac{x-c}{p}\right)^2$
Rotation	$R(x-c)R^{-1} + c$	$R_c = R + e(cxR)$	1
Translation	$x-a$	$T_a = 1 + \frac{1}{2}ae$	1
Transversion	$\frac{x-x^2a}{\sigma(x)}$	$K_a = 1 + ae_0$	$1 - 2a - x + x^2a^2$
Dilation	$\lambda x$	$D = e^{-\frac{1}{2}E \ln \lambda}$	-1
Involution	$x^* = -x$	$E = e \wedge e_0$	-1

FIG. 4



**System for Encoding and Manipulating Models of Objects**

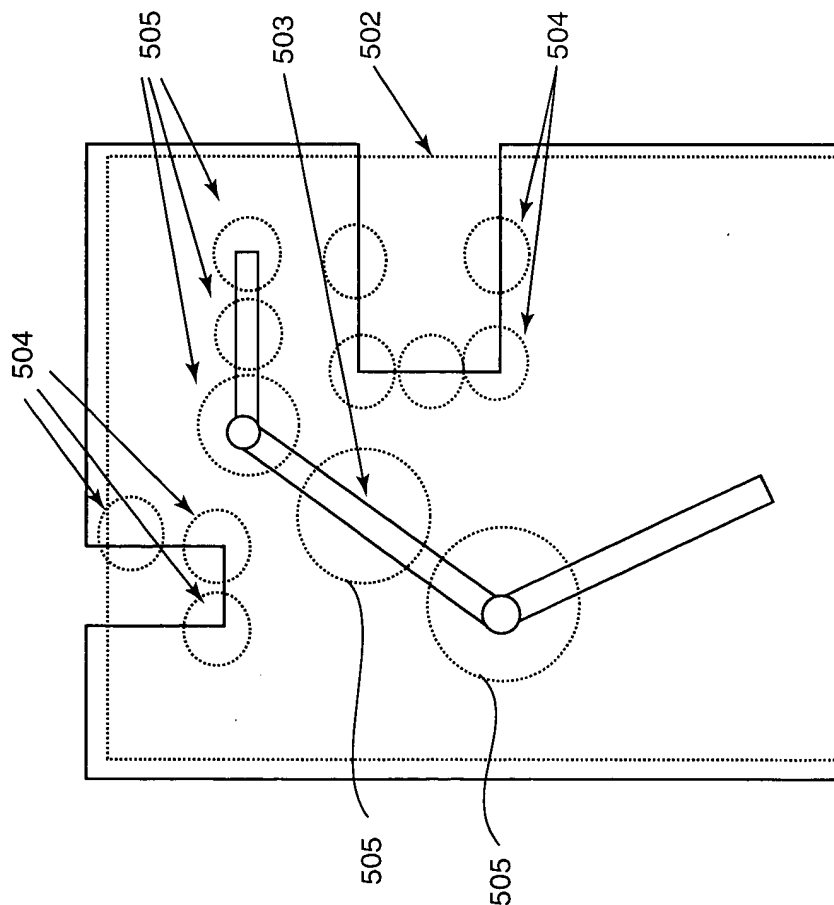
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**FIG. 5**